

November 19, 2013

Ms. Marlene H. Dortch
Secretary
Federal Communication Commission
445 12th Street SW
Washington, DC 20554

Re: Notice of *Ex Parte* Communication, WC Docket No. 13-184

Dear Ms. Dortch:

On November 12, 2013, George F. Washington, Benny Thomas, and John Vehmeier from the Franklin County Public Schools, Dr. Rich Contartesi and Michael Larson from the Loudon County Public Schools, and Greg Weisiger, an E-Rate Central Consultant who is the former Virginia State school and current library E-Rate Coordinator, spoke via telephone with Lisa Hone, James Bachtell, Soumitra Das, Charles Eberle, Dania Ayoubi, and Mark Walker from the Wireline Competition Bureau and Michael Steffen, FCC Director of Digital Learning. The purpose of the call was to discuss the status of broadband connectivity to schools in Franklin and Loudon Counties and across Virginia and seek input on the Commission's July 23, 2013 Notice of Proposed Rulemaking in the above-referenced docket. The participants provided the following information during the call:

- *Broadband deployment in rural Virginia.* Many schools in rural southern and western Virginia are connected to a high speed fiber network administered by the Mid-Atlantic Broadband Cooperative (MBC), a consortium formed in 2004 to promote economic growth in the region. MBC received grants from the Virginia Tobacco Commission and the U.S. Department of Commerce to build a carrier class fiber network connecting business centers and industrial parks. Public schools were not amongst the entities that were initially permitted to connect to MBC. In 2010, MBC received three grants from the Broadband Technology Opportunities Program (BTOP) to connect all K-12 schools in southern Virginia and further extend the fiber network.

Virginia does not have a statewide research and education network. The state legislature provides periodic funding on a regional basis to support technology. The state has cooperative contracting laws that allow localities to make their contract rates publicly available. Other localities are then able to purchase service under those contract terms and conditions. The cooperative contracts are not published online through any central database but some school and municipalities put their contracts online. Mr. Weisiger searches for cooperative contracts and identifies them for schools and school districts.

Network Virginia is a statewide master contract initially negotiated by universities over 20 years ago. The contract has been amended several times and many schools still purchase services off it. The Virginia Information Technologies Agency (VITA) is the state agency responsible for information technology. VITA recently created a statewide portal that allows schools to find contracts with small and medium sized cable companies across the state. VITA also has master contracts with the major wireless providers, Verizon, CenturyLink, and others for wired broadband. Districts can purchase service directly from VITA, which adds a surcharge. VITA does not participate in the E-rate Program and does not act as a vendor.

- *WAN and Internet Access.* Franklin County has approximately 7,200 students in 12 elementary schools, three middle schools, one high school, and one adult education center. The district used BTOP support to connect to MBC fiber and now operates a WAN with 100 Mbps connections to each elementary school, 1 Gbps to the high school, and a shared 1 Gbps connection to the three middle schools. The 100 Mbps connections cost \$1,299/month and the 1 Gbps connections cost \$5,900/month. Franklin County has a 150 Mbps Internet access connection at a rate of \$3,400/month from Shentel, the local cable provider. Three vendors submitted bids in response to Franklin County's WAN RFP. Mr. Washington stated that these broadband speeds are currently more than sufficient to meet the district's needs but may not be in 5 years.

Loudon County has approximately 70,000 schools and 54 locations. The district has a "spoke and hub" WAN with a central data center. The district purchases a 500 Mbps Internet Access connection from Verizon for \$11,544/month and a second 500 Mbps connection from Cogent for \$5,177/month. Six of the districts small elementary schools have 10 Mbps circuits that cost \$750/month through the Network Virginia contract. The remaining 49 elementary schools, all 14 middle schools, and 12 high schools have 100 Mbps service for \$1,300/month. Three high schools have 1 Gbps connectivity for \$2,100/month.

- *WiFi.* Franklin County purchases an Aruba Networks enterprise-grade WiFi system that provides 100% coverage in all schools. The district pays approximately \$650/wireless access point (WAP), including cabling, controllers, and licensing. WAPs are deployed to every other classroom in elementary schools. The middle schools and high schools are considering permitting bring your own device (BYOD), but for now the WAP deployment cannot support full BYOD. The technology staff believes that WAPs strategically deployed to every other classroom could support BYOD. All WAPs in the elementary and middle schools are at the 802.11n standard, and the high schools remain on the 802.11g standard. The district's budget anticipates a six year life cycle for WAPs, and a 15-20 year cycle for cabling.

Loudon County has 100% WiFi coverage and recently upgraded to a WAP in every classroom in all schools. The district pays \$695/WAP and all are on the 801.22n standard.

- *Caching and Network Optimization.* Franklin County does not use any caching or any traffic management services at this time because it has ample bandwidth at each school. Mr. Washington noted that before the district connected to MBC it had to place limits on classroom use of streaming video and other bandwidth-intensive services. He also noted that increased use of online testing has driven bandwidth demand and the district offers high speeds to minimize inconvenience to teachers.
- *Misc*
 - Mr. Washington noted that the Eligible Services List often does not add new technologies in a timely fashion.
 - Both districts are increasing their use of cloud services, including Google apps, antivirus programs, and email.

Respectfully submitted,

 /s/
Charles Eberle
Attorney-Adviser, Telecommunications Access Policy Division, Wireline Competition Bureau